

## University of Dundee

### **Focus on Research: A podiatry intervention to reduce falls in care home residents: development, feasibility and acceptability study with exploratory randomised controlled trial**

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# FOCUS ON RESEARCH

## A podiatry intervention to reduce falls in care home residents: development, feasibility and acceptability study with exploratory randomised controlled trial

### Researchers

**PI:** Gavin Wylie; **Co-applicants:** Prof Hylton Menz, Dr Jacqui Morris, Prof Brian Williams, Prof Frank Sullivan, Dr Simon Ogston, Dr John Harper; **Research Workers:** Zoe Young, Dr Joanne Coyle, Sarah McFarlane

### Aims

1. To assess the feasibility and acceptability of a podiatry intervention to reduce falls in care home (CH) residents.
2. To develop the intervention for use in an exploratory randomised controlled trial to establish its *potential* effectiveness in terms of falls reduction and other falls-related outcomes.

### Project Outline/Methodology

**Part 1:** We wanted to examine how easy or difficult it was for CH residents to participate in the podiatry intervention (foot/ankle exercises, and the use of special insoles and footwear). We ran a 12 week feasibility study with 8 CH residents and associated CH staff. We then conducted interviews to gain participants' views on their experiences of the intervention, and what improvements would be helpful. We also wanted to look at some of the methods we might employ in our subsequent exploratory randomised controlled trial, for example, the feasibility of recruiting CH residents and the selection of the best measures to use to assess the impact of the intervention. **Part 2:** We conducted the exploratory randomised controlled trial (RCT) with 43 CH residents randomised to receive either the podiatry intervention or usual care. The RCT was designed to assess potentially beneficial effects on falls rates and frequencies. We followed CH residents for 6 months after the end of the intervention period.

### Key Results

**Part 1.** CH residents and their carers found the podiatry intervention straightforward to participate in. CH staff delivered the exercise component of the intervention, which meant they received training from members of the research team. Varying shift patterns and high CH staff turnover meant it was difficult to access all relevant members of CH staff so we developed an online training resource that could be accessed by CH staff at a time which suited them. It was difficult to recruit CH residents who met our

inclusion criteria for the first part of our study, so we amended the criteria for the RCT part of our study. Recruitment was also difficult because there were more CH residents with profound cognitive impairment than we anticipated; this meant we had to visit more CHs than originally planned in order to recruit sufficient numbers of residents to the RCT.

**Part 2.** The RCT showed fewer average falls for the podiatry intervention group (2.3) compared to the control group (2.7) Maximum benefit was seen at the end of the intervention, but this was not sustained 6 months later. The time taken to experience a fall was also longer in the intervention group compared to the control group. There were minimal changes in balance, mobility and quality of life between the two groups, and so the mechanism by which intervention makes an impact remains unclear. Logbooks of exercise completion were not well completed so the proportion of participants fully adhering to the intervention exercise programme was unclear.

### Conclusions

A podiatry intervention to reduce CH falls as part of an RCT is feasible. Our results suggest a beneficial effect on the number of falls, which may be more substantial if adherence to the exercises was improved, and if we recruited larger numbers of CH residents.

### What does this study add to the field?

A trial of a podiatry intervention to reduce CH falls will recruit well and may confer benefits to its recipients.

### Implications for Practice or Policy

We cannot make a *definite* statement as to the effectiveness of the intervention, since this study was not designed to tell us that, *but* the results are enough to judge a large trial to definitively test effectiveness to be worthwhile.

### Where to next?

We will apply for funding to conduct a large multicentre RCT. This will be designed to include CH residents with significant cognitive impairment.

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